

AMENDMENTS TO THE SPECIFICATION

Please replace the third full paragraph on page 3 with the following amended paragraph:

According to the invention, this object is met in that the casing comprises a second shell or sleeve of high magnetic permeability between the first shell and the yoke, wherein said second shell comprises at least one recess, in particular in the shape of an annular groove, on its side facing away from the core, for focusing magnetic field lines M from the yoke onto the core, and in that in the region of the recess of said second shell, the yoke and/or adjustment member, in particular in the form of an adjustment ring, of high magnetic permeability is/are moveable relative to said second shell, for adjusting the ~~magnetically~~ effective magnetic length $[[l]]$ L of the recess of the second shell.

Please replace the second full paragraph on page 4 with the following amended paragraph:

Preferred embodiments of the invention are characterized in that the core comprises at least one second recess on the side facing away from the solenoid plunger, and/or the adjustment member comprise(s) at least one first recess on the side facing towards the core, wherein the ~~magnetically~~ effective magnetic length $[[l]]$ L of the recess of the second shell, for targeted focusing of the magnetic field lines M, is adjustable by relative movement between the core and the adjustment member, during which relative movement the core can, at least partly, be moved into/out of the first recess in the adjustment member, and/or the adjustment member can be moved, at least partly, into/out of the second recess in the core.

Please replace the first full paragraph on page 5 with the following amended paragraph:

The invention is thus based on the surprising finding that in a solenoid plunger system the magnetic circuit in two aspects can be adjusted in two decoupled ways. In this arrangement according to the invention, both the necessary setting for determining an adjustment point of an electropneumatic pressure transducer in the region of positive rigidity, and the setting for producing a quantitative connection between a cycle ratio and a mixing pressure can be made possible by decoupled intervention in the magnetic flux of the solenoid plunger system, in that on the one hand an iron core is moved relative to a solenoid plunger for the purpose of adjusting an air gap between them, and on the other hand, separately of the former process, an adjustment ring is moved relative to an annular groove in a shell for adjusting ~~a magnetically~~ an effective magnetic length of the annular groove, namely as a magnetic impedance.

Please replace the first full paragraph on page 7 with the following amended paragraph:

ii) In addition, a desired quantitative connection between a cycle ratio and a mixing pressure can be set by way of the adjustment ring 51, in that a tool (not shown) is inserted into the second recess 51b of said adjustment ring 51 so as to rotate the adjustment ring 51 further into, or out of, the iron core 48. In this arrangement, the size of the overlap of the recess 47a in the second shell 47 is adjusted by the adjustment ring 51, which provides a guide of the magnetic field lines M and thus adjustment of the magnetomotive force of the solenoid plunger system 4 according to the invention, as is shown in the enlargement of section A of Figure 1 in Figure 2. In other words, an adjustment of the ~~magnetically~~ effective magnetic length [[I]] L of the

recess 47a in the second shell 47, i.e., of the magnetic impedance, for adjusting the magnetomotive force of the solenoid plunger system 4, is made possible.

Please replace the paragraph bridging page 7 to page 8 with the following amended paragraph:

The solenoid plunger 45', the iron core 48' as well as the adjustment ring 51' of Figure 3 differ from the solenoid plunger 45, the iron core 48 and the adjustment ring 51 of Figures 1 and 2 in that the respective recesses 45'a, 48'a and 48'b, and 45a, 48a and 48b, respectively, are of a different design. However, plunging of the solenoid plunger 45' in the iron core 48' is still possible. However, it has been shown to be particularly advantageous to bevel the second recess 48'b of the iron core 48' and also to bevel the side of the adjustment ring 51', which side faces towards the iron core 48', which leads to an increase in the adjustment region for the ~~magnetically~~ effective magnetic length of the recess 47'a of the second shell 47'.

Please replace the first full paragraph on page 8 with the following amended paragraph:

The function of the solenoid plunger system 4' corresponds to that of the solenoid plunger system 4 with decoupled adjustability, namely coarse adjustment by way of setting the air gap 49' and fine adjustment by way of setting the ~~magnetically~~ effective magnetic length of the recess 47'a of the second shell 47' as a magnetic impedance.

Please replace the last line on page 13, under “List of reference characters,” with the following amended line:

[[1]] L ~~Magnetically effective~~ Effective magnetic length of the annular groove

After the last line on page 13 and before the claims listing, please insert:

What is claimed is:

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESSTM
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100